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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,178	04/11/2005	Stephan Huffer	268687US0PCT	4644
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KHAN, AMINA S	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 08/19/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/531,178	Applicant(s) HUFFER ET AL.	
	Examiner AMINA KHAN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicant's amendments filed on April 22, 2009.
2. Claims 1-3 and 5-21 are pending. Claim 4 has been cancelled. Claims 20 and 21 are new. Claims 1,2,7-9,12,13 and 16 have been amended.
3. Claims 1-3,5-7,9-13,16 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590) for the reasons set forth in the previous office action.
4. Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590) and further in view of Cramer et al. (US 2002/0192366) for the reasons set forth in the previous office action.
5. Claims 8 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590) and further in view of Munjtes (US 4,442,687) for the reasons set forth in the previous office action.

6. Claims 18 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590) and further in view of Tamareselvy (US 7,378,479) for the reasons set forth in the previous office action.

7.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3,5-7,9-13,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590).

Plapper teaches tanning leathers with a combination of aluminosilicates of particle size in the range of 0.2 to 25 μ m (column 9, lines 15-20), specifically modified kaolinites (column 8, lines 5-10). Plapper further teaches that tanning can be accomplished with vegetable-synthetic tanning materials and post-tanning and oiling in aqueous solution (which meets the limitation of moistening or resoftening the semifinished leather product in an aqueous solution) can take place (column 12, lines 5-15; column 23, example 4). Plapper further teaches that the desired particle size can be adjusted by grinding and air sifting (column 9, lines 15-20). Plapper further teaches

pretanning sheep hide with the clays, tanning with vegetable tanning agents and oiling agent, placing the leather in fresh liquor, rinsing the leather and drying the hides in the conventional manner after tanning (see example 1).

Plapper does not teach the bimodal distribution, dried water content of the hide, adding a tanning agent such as glutaraldehyde to the clay in the pretanning step, moistening in protein hydrolysis product or adding nitrocellulose.

Komforth teaches the functional equivalence of tanning leather with vegetable tanning agents and reactive tanning agents such as glutaraldehydes (column 3, lines 25-45), using particles such as kaolins and additives such as polysaccharides, polyurethanes and nitrocellulose for the benefits of being carriers and dressing agents for the leather (column 4, lines 1-7,20-40 and 45-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the glutaraldehydes and nitrocelluloses of Komforth into the leather treatments of Plapper because Komforth teach glutaraldehydes as effective tanning agents when used with kaolins and nitrocellulose as an effective dressing agent for leather. One of ordinary skill in the art at the time the invention was made would expect that the dehairing step would produce protein hydrolysis products which would still be present during the pretanning and defatting stage and therefore would be available to moisten the leather.

Regarding the limitation of the order of steps, the applicant has not demonstrated the criticality of treating first with clay and tanning agent, followed by moistening or resoftening. Nothing unobvious is seen in changing the order of steps or adding

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aluminosilicates first followed by tanning. Furthermore, nothing unobvious is seen in combining the aluminosilicates with the tanning agents as such a step is taught as beneficial from Komforth. Changing the order of steps does not render a claimed process nonobvious over the prior art, see *Ex parte Rubin*, 128 USPQ 440, 441, 442 (POBA 1959).

Regarding the limitations of bimodal distribution of particles, it would have been obvious to one of ordinary skill in the art to optimize this variable to arrive at a pretanned hide with improved tanning agent reception properties resulting in the most effectively tanned leather. The particle size distribution would be expected to influence the tanning agent penetration properties of the hide because the particles impact the hide and modify the surface properties thus particle size distribution would be considered a result effective variable. Furthermore, Plapper explicitly teaches that the desired particle size can be adjusted by grinding and air sifting (column 9, lines 15-20). Nothing unobvious is seen in sifting the particles to arrive at a bimodal distribution.

Regarding the limitations of the water content of the dried hides, it would have been obvious to one of ordinary skill in the art to optimize this variable to arrive at a pretanned hide with improved tanning agent reception properties resulting in the most effectively tanned leather. The water content would be expected to influence the tanning agent penetration properties of the hide and would be considered a result effective variable.

Regarding the limitation of osmosis, it would be expected that placement of the hide in a water or aqueous bath would produce osmotic penetration into the leather.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

10. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242) in view of Komforth et al. (US 6,033,590) and further in view of Tamareselvy (US 7,378,479).

Plapper and Komforth are relied upon as described in paragraph 9.

Plapper and Komforth do not teach spraying on cationic polymers or amphoteric polymers for softening leather.

Tamareselvy et al. teach cationic associative polymers formulations also including amphoteric polymers as additives (column 23, lines 60-65) for spray application to leather substrates during leather processing, finishing and coating (column 17, lines 30-50; column 22, lines 1-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tanning methods taught by Plapper and Komforth by incorporating the spray application of compositions comprising cationic polymers and amphoteric polymers for softening the leather because Tamareselvy clearly teaches softening benefits of these compounds when applied by spraying during leather and hide treating and processing steps.

Response to Arguments

11. Applicant's arguments filed regarding Plapper in view of Komforth have been fully considered but they are not persuasive. The applicant argues that Plapper and Komforth do not teach the instantly claimed bimodal particle distribution and water content of the dried hide. The examiner argues that it would have been obvious to one of ordinary skill in the art to optimize both these parameters.

Regarding the limitations of bimodal distribution of particles, it would have been obvious to one of ordinary skill in the art to optimize this variable to arrive at a pretanned hide with improved tanning agent reception properties resulting in the most effectively tanned leather. The particle size distribution would be expected to influence the tanning agent penetration properties of the hide because the particles impact the hide and

modify the surface properties thus particle size distribution would be considered a result effective variable. Furthermore, Plapper explicitly teaches that the desired particle size can be adjusted by grinding and air sifting (column 9, lines 15-20). Nothing unobvious is seen in sifting the particles to arrive at a bimodal distribution.

Regarding the limitations of the water content of the dried hides, it would have been obvious to one of ordinary skill in the art to optimize this variable to arrive at a pretanned hide with improved tanning agent reception properties resulting in the most effectively tanned leather. The water content would be expected to influence the tanning agent penetration properties of the hide and would be considered a result effective variable.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

/Amina Khan/
Examiner, Art Unit 1796

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